WHAT IS CLAIMED IS:

1   1.   A method comprising:
2   determining that a change occurred to data in a first region of a first plurality of regions of a
3   first volume without including the first region in a set of regions designated for
4   replication to a second volume.

1   2.   The method of claim 1 wherein
2   the change occurred to the data in the first region as a result of restoring at least one region of
3   the first plurality of regions from a second set of regions of a third volume.

1   3.   The method of claim 2 wherein
2   the third volume is a snapshot of the first volume at one point in time.

1   4.   The method of claim 1 wherein
2   a second region of the first plurality of regions is included in the set of regions designated for
3   replication when
4   a respective change to the second region is added to a log comprising at least one
5   change to at least one region, wherein
6   each region of the at least one region in the log is designated for replication to
7   the second volume.

1   5.   The method of claim 4 wherein
2   a third region of the first plurality of regions is included in the set of regions designated for
3   replication when
4   a second respective change occurs to the third region, and
5   the second respective change to the third region cannot be added to the log.

1   6.   The method of claim 1 further comprising:
2   adding the first region to the set of regions designated for replication.

1   7.   The method of claim 6 further comprising:
2   replicating each region in the set of regions designated for replication from the first volume to
3   the second volume.

1   8.   The method of claim 7 wherein

2 the replicating each region does not comprise replicating all regions from the first volume to

3   the second volume.

1   9.   The method of claim 7 wherein

2 the replicating continues during the restoring.

1   10.   The method of claim 7 wherein

2 the data are accessible during the replicating.

1   11.   The method of claim 7 wherein

2 the data are accessible during the restoring.

1   12.   The method of claim 7 wherein

2 the determining that the change occurred comprises

3   determining that the first region is one of a set of pending regions in a log, wherein

4   the log comprises at least one change to at least one region,

5   each region of the at least one region in the log is included in the set of regions

6   designated for replication, and

7   the replicating has not replicated the set of pending regions.

1   13.   The method of claim 1 wherein

2 a second region of the first plurality of regions is included in the set of regions designated for

3   replication when

4   a second respective change occurs to the second region, and

5   the second respective change cannot be added to a log of changes to at least one

6   region, wherein

7   each region of the at least one region in the log is included in the set of regions

8   designated for replication.

1   14. A system comprising:

2 determining means for determining that a change occurred to data in a first region of a first

3   plurality of regions of a first volume without including the first region in a set of

4   regions designated for replication to a second volume; and

5 adding means for adding the region to the set of regions designated for replicaiton.

1   15.   The system of claim 14 further comprising:

2   replicating means for replicating each region in the set of regions designated for replication

3   from the first volume to the second volume.

1   16.   The system of claim 15 wherein

2   the replicating means do not replicate all regions from the first volume to the second volume.

1   17.   A system comprising:

2   a determining module to determine that a change occurred to data in a first region of a first

3   plurality of regions of a first volume without including the first region in a set of

4   regions designated for replication to a second volume.

1   18.   The system of claim 17 further comprising:

2   an adding module to add the region to the set of regions designated for replication.

1   19.   The system of claim 17 further comprising:

2   a replicating module to replicate each region in the set of regions designated for replication

3   from the first volume to the second volume.

1   20.   The system of claim 17 wherein

2   the replicating module does not replicate all regions from the first volume to the second

3   volume.

1   21.   A computer-readable medium comprising:

2   determining instructions to determine that a change occurred to data in a first region of a first

3   plurality of regions of a first volume without including the first region in a set of

4   regions designated for replication to a second volume.

1   22.   The computer-readable medium of claim 21 further comprising:

2   adding instructions to add the region to the set of regions designated for replication.

1   23.   The computer-readable medium of claim 21 further comprising:

2   replicating instructions to replicate each region in the set of regions designated for replication

3   from the first volume to the second volume.

1   24.   The computer-readable medium of claim 21 wherein

2   the replicating instructions do not replicate all regions from the first volume to the second

3   volume.